



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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## REGULATORY ADVISORY PANEL MEETING SUMMARY

### Triennial Review WQS

November 18, 2013

## Welcome and Introductions

### Advisory Panel Members and Alternates Present:

**City of Richmond:** Grace LaRose

**Dominion Power:** Oula Shehab-Dandan & Jason Ericson

**Filtterra:** Chris French

**Friends of the Rivers of Virginia:** Patti Jackson

**James River Association:** Adrienne Kotula

**VA Association of Municipal Wastewater Agencies:** Dick Sedgley & Jamie Heisig-Mitchell

**VA Coal Association:** John P. Jones & Thornton Newlon

**VA Manufacturer's Association/VA Mining Issues Group:** Brooks Smith

**US Fish & Wildlife Service:** Brett Hillman

**VA Dept. Conservation & Recreation:** Rene Hypes

**VA Dept. Game & Inland Fisheries:** Ernie Aschenbach

### DEQ Staff Present:

John Kennedy (Facilitator), Melanie Davenport, Alex Barron, David Whitehurst, Fred Cunningham, Allan Brockenbrough, Arthur Butt, Craig Lott

## Overview and Discussion of Triennial Review Potential Amendments

The triennial review process and timeline was reviewed. DEQ staff will ask the Board in late March or early April 2014 for approval to go to public hearing with a proposed regulation. The current timeline plans for a final regulation by early 2015. All aspects of the regulation will be open for comment. These include antidegradation, use designations, mixing zones, bacteria, swamp waters, numerical criteria, special standards, trout waters and public water supply. These are the main issues that staff used to focus the regulatory advisory panel's efforts. A summary of the issues to be addressed for possible inclusion in a proposal identified by DEQ staff and by stakeholder comment received during the Notice Of Intended Regulatory Action (NOIRA) was reviewed. They are itemized as follows:

#### DEQ staff-identified issues:

- **Manganese:** Natural conditions often exceed the PWS criterion, which is expressed as total (EPA disapproved previous amendment to express as dissolved). Current standard is related to finished drinking water; not considered appropriate for ambient water quality assessments.
- **Lead:** slight conversion factor adjustments to allow the lead criteria concentrations to be expressed as dissolved measurements instead of total recoverable.
- **Cadmium:** will consider revising the old criteria for cadmium in freshwater based on more recent data.
- **Bacteria Criteria:** New EPA recommended criteria for protection of recreation (swimming)
- **Ammonia Criteria:** New EPA recommended criteria for protection of freshwater aquatic life
- **Copper:** New EPA recommended criteria; Biotic Ligand Model (BLM) for copper – freshwater aquatic life
- **Acrolein:** New EPA recommended criteria for protection of freshwater aquatic life-acute & chronic criteria
- **Carbaryl:** New EPA recommended criteria for the protection of fresh (acute/chronic)- & saltwater (acute only) aquatic life
- Update human health criteria based on new scientific information as appropriate
- Class VII (swampwaters) designation for approximately 10 waters currently designated as Class IIIs
- Add, modify or delete trout waters as appropriate.
- Adjust application of temperature criteria to winter-only stockable streams during summer
- Add, modify, or delete public water supply designations per VA Dept. of Health consultations

#### Issues identified during NOIRA Public Comment:

- Revise freshwater aquatic life selenium criteria....criteria recalculation study report submitted by VA Mining Issues Group.
- Clarify that the Stream Condition Index is to be used for monitoring & assessment purposes but not as a criterion for permitting or enforcement actions.
- Promulgate a bromide criterion for public water supplies to protect against potentially harmful disinfection by-products.
- Adopt a biotic ligand model-derived zinc criterion for protection of freshwater aquatic life
- Add definition of “pollution”
- **General narrative criteria (9VAC25-260-20).** Revise 1<sup>st</sup> paragraph to clearly require that the conditions listed there are prohibited in state waters w/o regard to causes which produce those conditions and impacts
- Clearly identify antidegradation policy implementation and incorporate into WQS regulation
- Promulgate numeric criteria for nutrients in freshwater streams
- Address alteration of stream flow regimes through WQS regulation
- Do not make human health criteria revisions based on RfDs that IRIS has indicated low degree of confidence
- No mixing zones where T&E species present
- Lower Cyanide freshwater criteria based on the report: “Scientific Review of Cyanide Ecotoxicology and Evaluation of Ambient Water Quality Criteria: Final Report” (January 2007)
- **Methyl mercury fish tissue criterion:** evaluate for protectiveness of Threatened & Endangered species; not just human health
- **Clarify special standard ‘m’** to state effluent limitations for are for municipal WWTF in Chickahominy watershed above Walker’s Dam

It was noted by DEQ staff that there is a more recent (2010) USGS revision and recalculation of the cadmium criteria that is slightly different from the 2006 USGS recalculation that had been the basis for the earlier decisions for carrying this issue over to this triennial review. The new

acute criterion recommended by the 2010 USGS cadmium criteria recalculation is lower than the acute criterion value recommended in the USGS 2006 revised criteria, but the chronic criterion value is the same. The 2010 version of the USGS cadmium review and recalculation will be made available to the public via the DEQ Water Quality Standards web page.

<http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityStandards/RulemakingInfo.aspx> .

USFWS expressed concern that the current criterion for cyanide is 5.2 ug/L but the approved quantification level is 10 ug/L. They mentioned there is a newly approved quantification level in wastewater of 2.0 ug/L and suggested that DEQ should require the use of the lower quantification level for cyanide. DEQ noted this important information that will be useful for the implementation and permit issues, though not specifically a WQS issue.

It was asked if special standard 'm' - a wastewater effluent limitation for nutrients and applies to wastewater discharges in the Chickahominy River watershed above Walker's Dam - if total phosphorus (TP) was included and would impact stormwater discharges. Clarification was provided that TP was included but discharges consisting solely of stormwater was excluded.

There was general discussion about the Biotic Ligand Model (BLM) for calculation of copper criteria in freshwater and the lack of Virginia analytical data for the numerous parameters necessary for using the BLM right away. It was asked if there would be a transition period and if the BLM would be similar in use as a Water Effects Ratio (WER). DEQ staff thinks that if the BLM were adopted there would need to be a transition period where use of the current hardness based criteria could continue until sufficient data for the BLM parameters could be collected. Either the permittee or DEQ could collect the data to run the BLM. A likely scenario would be for permitted dischargers to maintain their current permit requirements until sufficient model parameter data were available since there is a lack of such data to support BLM approach and monies have not been budgeted in support of such an action by DEQ.

The question was raised about existing WERs. DEQ offered the opinion that these may be grandfathered as they are considered valid copper criteria that have been modified for site-specific conditions in the receiving stream similar to what the BLM is intended to do. These permits with copper-WER established permit limits should remain protective. Most are for small discharges so the overall effect should be minimal.

EPA implementation guidance states that in situations where states or tribes choose not to use the BLM, the state (or tribe) may continue to use the WER method as a means of developing site-specific criteria. Done this way, there would be two ways to develop site-specific criteria: 1) using the hardness-based criteria with a WER, and 2) using the BLM on a targeted basis. The permitting authority may consider requiring individual dischargers to collect the monitoring data in order to use the BLM, which EPA expects would be less expensive to obtain than site-specific toxicology data to develop a WER in most cases.

The discussion then moved toward federal Threatened & Endangered (T&E) species and the possibility of considering no mixing zones in T&E waters and it was mentioned that State-listed species should also be taken into consideration.

In relation to the new ammonia criteria, DEQ asked USWF, Dept. of Game and Inland Fisheries, and Dept. of Conservation and Recreation staff if there could be some consultation about the distribution of Unionid mussels in Virginia. This would be useful in helping to decide if Virginia could consider establishing certain geographical areas where the streams do not have suitable habitat for Unionid species or can we somehow identify waters where Unionids can be considered to be “not present”. The Eastern Shore or portions of the coastal plain or intermittent headwater streams may be such areas. The three agencies said that they would be willing to get DEQ staff in touch with their respective mussel experts to discuss the distribution patterns of freshwater mussels.

DEQ asked the same agencies for help in deciding how to deal with issue of winter-only-stocked trout streams and the temperature criterion of a maximum of 21 degrees C. It was noted that during the previous Triennial Review the issue of concern was for T&E species in some of these waters and the lack of understanding of the critical temperature for these species. DEQ asked for help in deciding what to do with these waters that seemingly get assessed as impaired for higher temperatures in summer when it appears that these temperatures may be natural and may not be causing harm to T&E or any other native species.

It was then asked when comments submitted during the comment period (Aug 12-Oct 11, 2013) would be made available. DEQ staff responded they are under review by DEQ and will be made available to the panel prior to the next meeting. It was also asked if the State Water Control Board is limited to consideration of only staff recommendations for continuing through the rulemaking. DEQ staff responded that the Board will be informed of all comments/issues and be provided with a rationale for those issues that are recommended by staff as proposed amendments and those that are not.

Staff agreed to distribute a summary of the meeting to the group prior to the December 13 meeting and provide tentative proposed language for some portion of the issues. The RAP was also informed that all presentations, summaries, and pertinent ancillary information would be made available on the DEQ Water Quality Standards web page:  
<http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityStandards/RulemakingInfo.aspx>

**Handouts distributed at the December meeting:**

Agenda, Regulatory Advisory Panel, Triennial Review, November 18, 2013  
Town Hall Agency Background document  
Copies of Slides from Presentations  
Triennial Review (Overview)